C5672
Log Data Report

Borehole Information:

Borehole:		C5672		Site:	100 B/C Area
Coordinates (WA St Plane)		GWL[1] (ft):	92.6	GWL Date:	08/08/07
North (m)	East (m)	Drill Date	TOC Elevation	Total Depth (ft)	Type
Not available	Not available	08/07	Not available	110	Cable

Casing Information:

Casing Type	Stickup (ft)	Outer Diameter (in.)	Inside Diameter (in.)	Thickness (in.)	Top (ft)	Bottom (ft)
Threaded Steel	0.6	8 5/8	7 11/16	15/32	0.6	110

Borehole Notes:

Casing diameter and casing stickup measurements were acquired by the logging engineer using a caliper and steel tape. Measurements were rounded to the nearest 1/16 in.

This borehole was drilled at the bottom of an approximate 25 ft deep excavation. The zero ft reference point for log data is the ground surface at the bottom of the 25 ft excavation.

Logging Equipment Information:

Logging System:	Gamma 4E		Type: / Serial No.:	SGLS (70%) / 34TP40587A
Effective Calibration Date:	05/17/07	Calibration Reference:	HGLP-CC-015	
		Logging Procedure:	HGLP-MAN-002, Rev. 0	

Logging System:	Gamma 4H		Type: / Serial No.:	NMLS / H310700352
Effective Calibration Date:	11/22/06	Calibration Reference:	HGLP-CC-002	
		Logging Procedure:	HGLP-MAN-002, Rev. 0	

Spectral Gamma Logging System (SGLS) Log Run Information:

Log Run	1	2 Repeat			
Date	08/08/07	08/08/07			
Logging Engineer	Spatz	Spatz			
Start Depth (ft)	0.0	86.0			
Finish Depth (ft)	109.0	96.0			
Count Time (sec)	100	100			
Live/Real	R	R			
Shield (Y/N)	N	N			
MSA Interval (ft)	1.0	1.0			
ft/min	N/A[2]	N/A			
Pre-Verification	DEG41CAB	DEG41CAB			
Start File	DEG41000	DEG41110			
Finish File	DEG41109	DEG41120			

Log Run	1	2 Repeat			
Post-Verification	DEG41CAA	DEG41CAA			
Depth Return Error (in.)	N/A	N/A			
Comments	No fine gain adjustment	No fine gain adjustment			

Neutron Moisture Logging System (NMLS) Log Run Information:

Log Run	3	4 Repeat			
Date	08/08/07	08/08/07			
Logging Engineer	Spatz	Spatz			
Start Depth (ft)	0.0	30.0			
Finish Depth (ft)	92.25	40.0			
Count Time (sec)	15	15			
Live/Real	R	R			
Shield (Y/N)	N	N			
Sample Interval (ft)	0.25	0.25			
ft/min	N/A	N/A			
Pre-Verification	DH662CAB	DH662CAB			
Start File	DH662000	DH662370			
Finish File	DH662369	DH662410			
Post-Verification	DH662CAA	DH662CAA			
Depth Return Error (in.)	N/A	0			
Comments	None	None			

Logging Operation Notes:

Logging was conducted with a centralizer on the sondes. Repeat sections were collected in this borehole to evaluate system performance.

Analysis Notes:

Analyst:	Henwood	Date:	12/07/07	Reference:	GJO-HGLP 1.6.3, Rev. 0

Pre-run and post-run verifications for the logging systems were performed before and after the day's data acquisition. The acceptance criteria were met.

A casing correction for 15/16-in.-thick casing was applied to the SGLS log data. There is no valid calibration for the neutron moisture data in a 7 11/16-in. borehole. Therefore, the data are plotted in counts per second and no correction factors are applied.

SGLS spectra were processed in batch mode using APTEC SUPERVISOR to identify individual energy peaks and determine count rates. Concentrations were calculated with an EXCEL worksheet template identified as G4EMay07.xls using efficiency functions and corrections for casing, water, and dead time as determined from annual calibrations. No corrections for dead time were necessary. A correction for water inside the casing is applied to the data below 92.6 ft.

Results and Interpretations:

No gamma emitting manmade radionuclides were detected. The routine processing software indicated Cs-137 near the MDL of 0.2 pCi/g. This detection is a statistical fluctuation and does not represent a full energy peak.

The KUT and moisture data indicate some variation.

The SGLS and moisture repeat logs show good repeatability.

List of Log Plots:

Depth Reference is ground surface

Man-made Radionuclides
Natural Gamma Logs
Combination Plot
Total Gamma and Dead Time
Moisture
Moisture Repeat Section
Repeat Section of Natural Gamma Logs

[1] GWL – groundwater level
[2] N/A – not applicable

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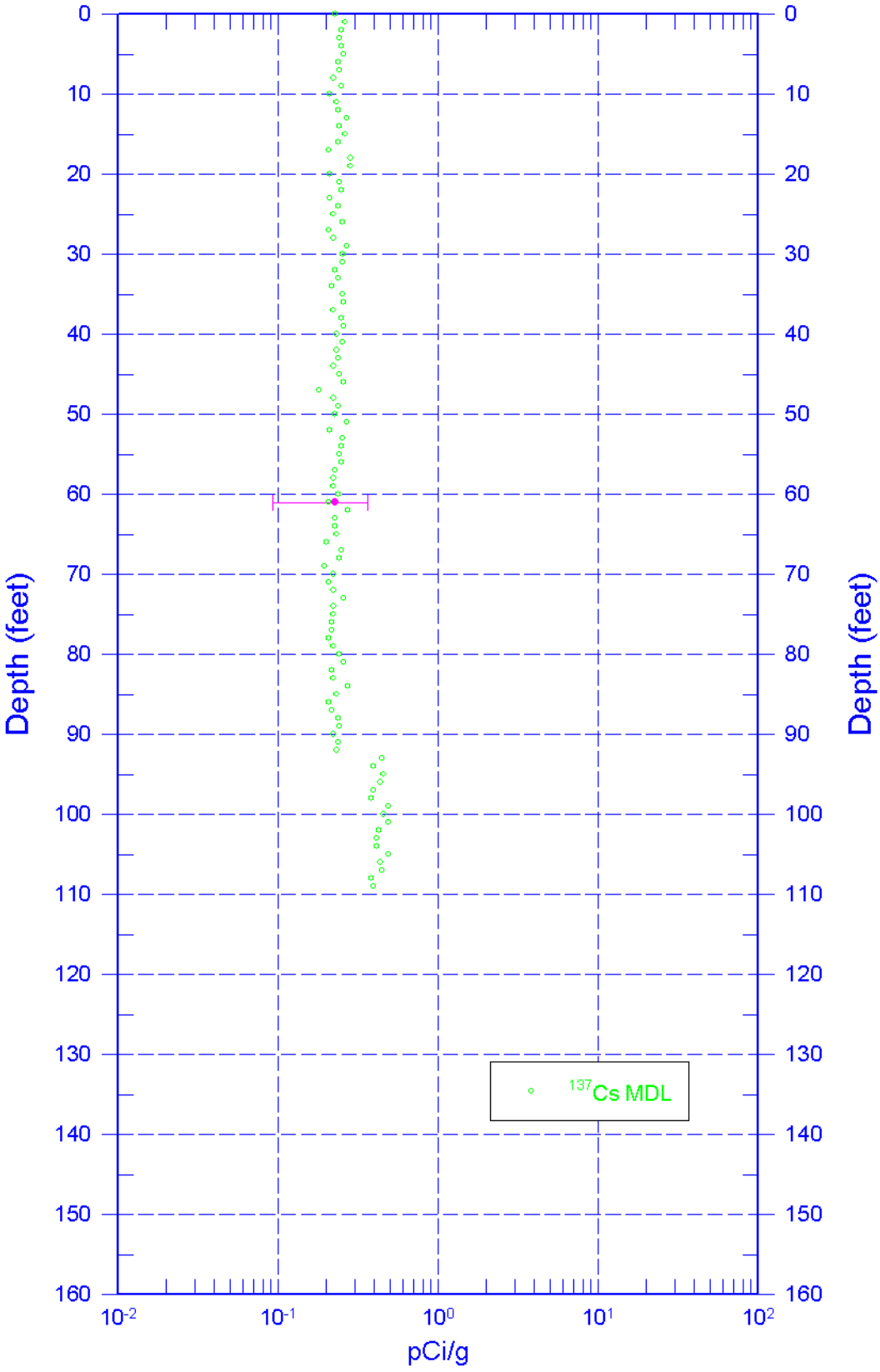
Man-Made Radionuclides



Zero Reference - ground surface

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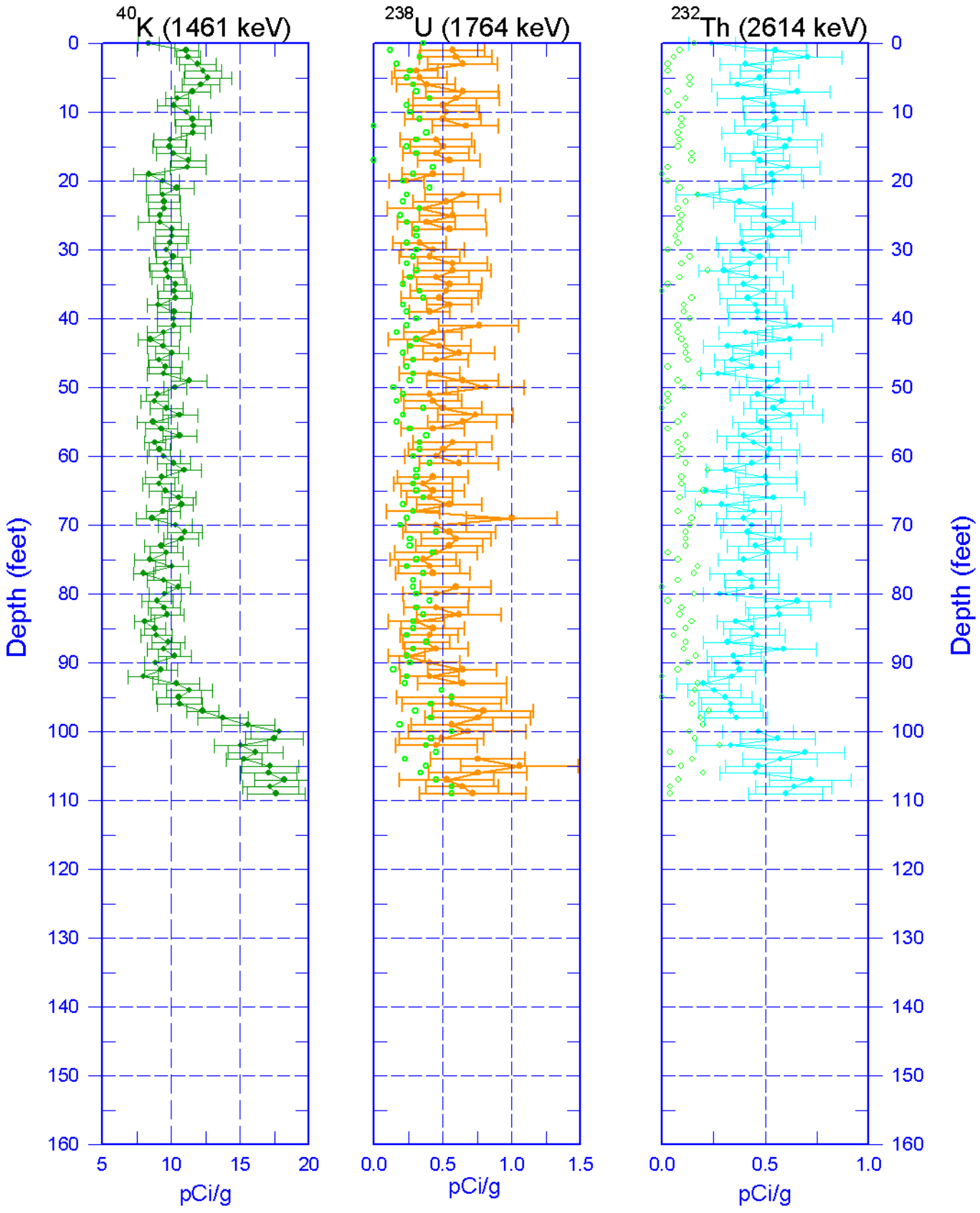
C5672
Natural Gamma Logs



Zero Reference = ground surface

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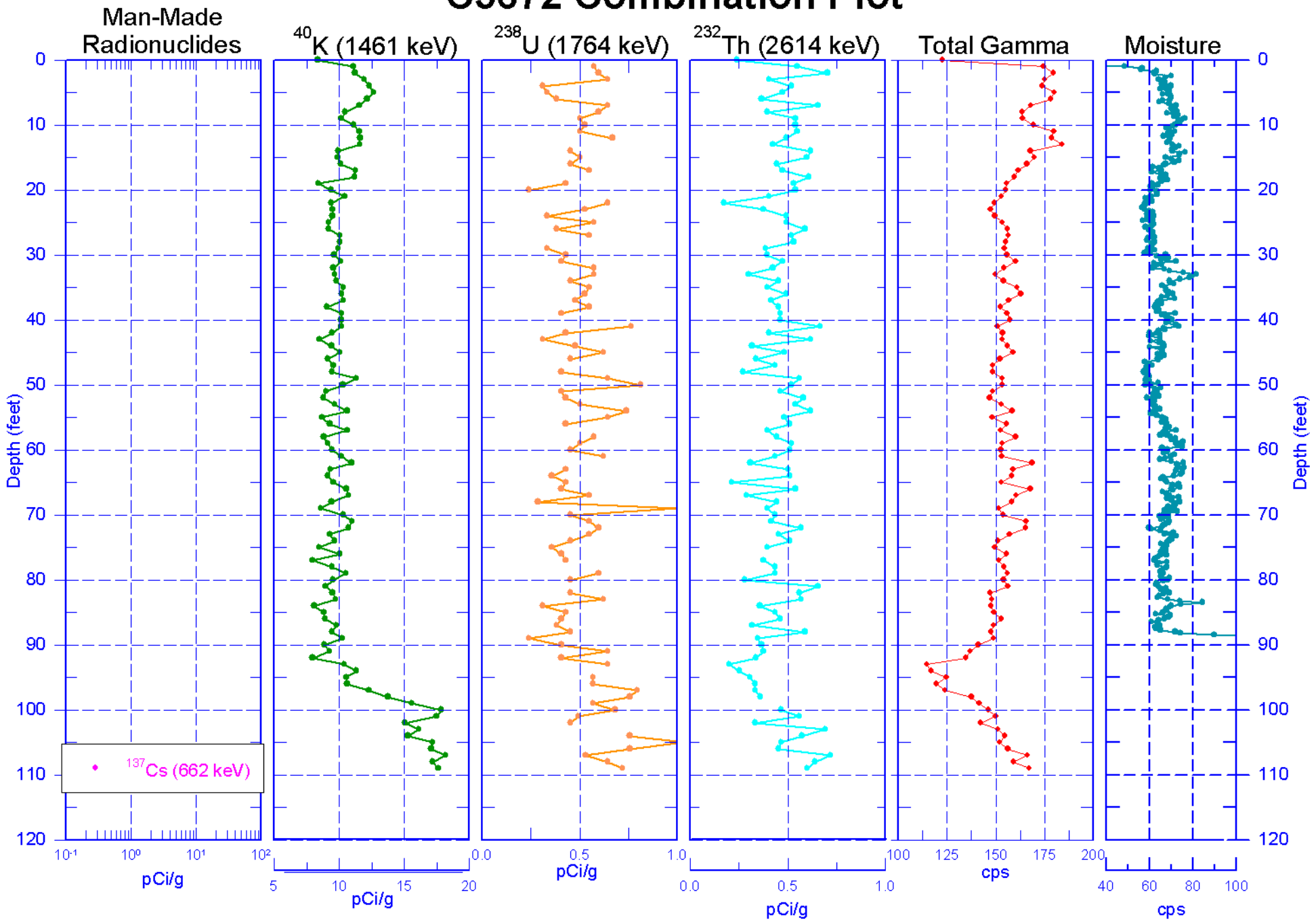
C5672 Combination Plot



Zero Reference - ground surface

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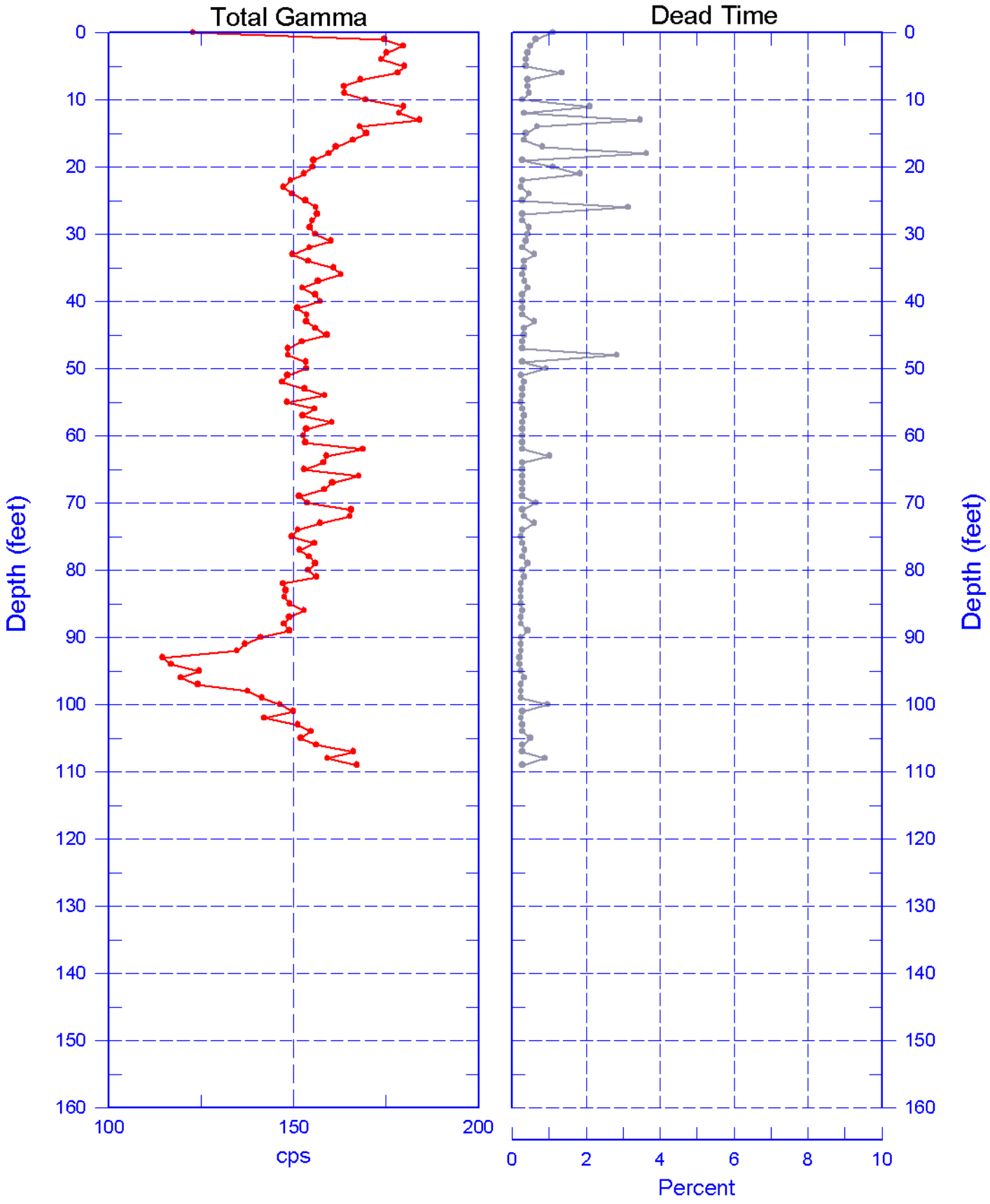
Total Gamma & Dead Time



Reference - ground surface

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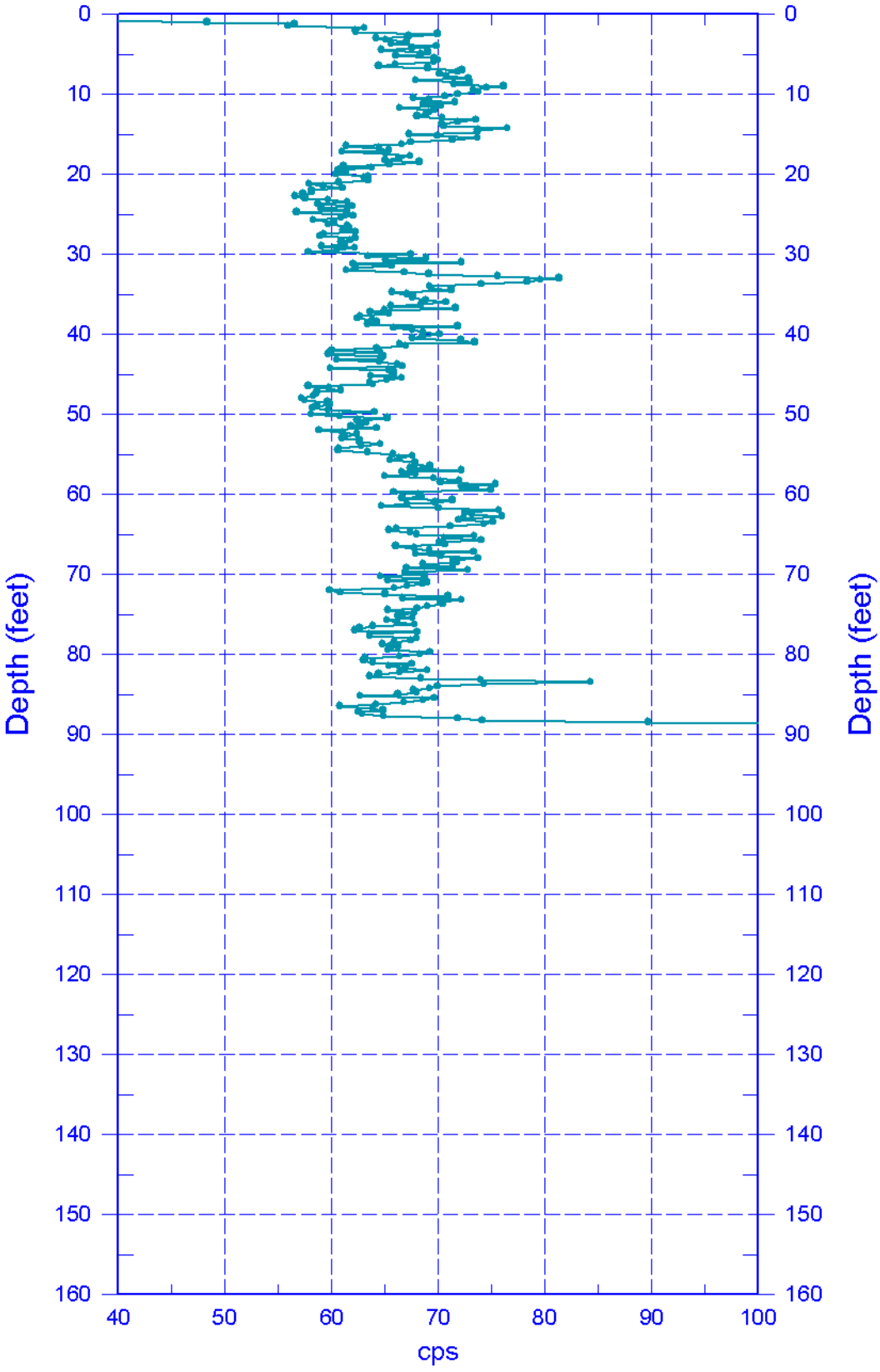
Moisture



Zero Reference - ground surface

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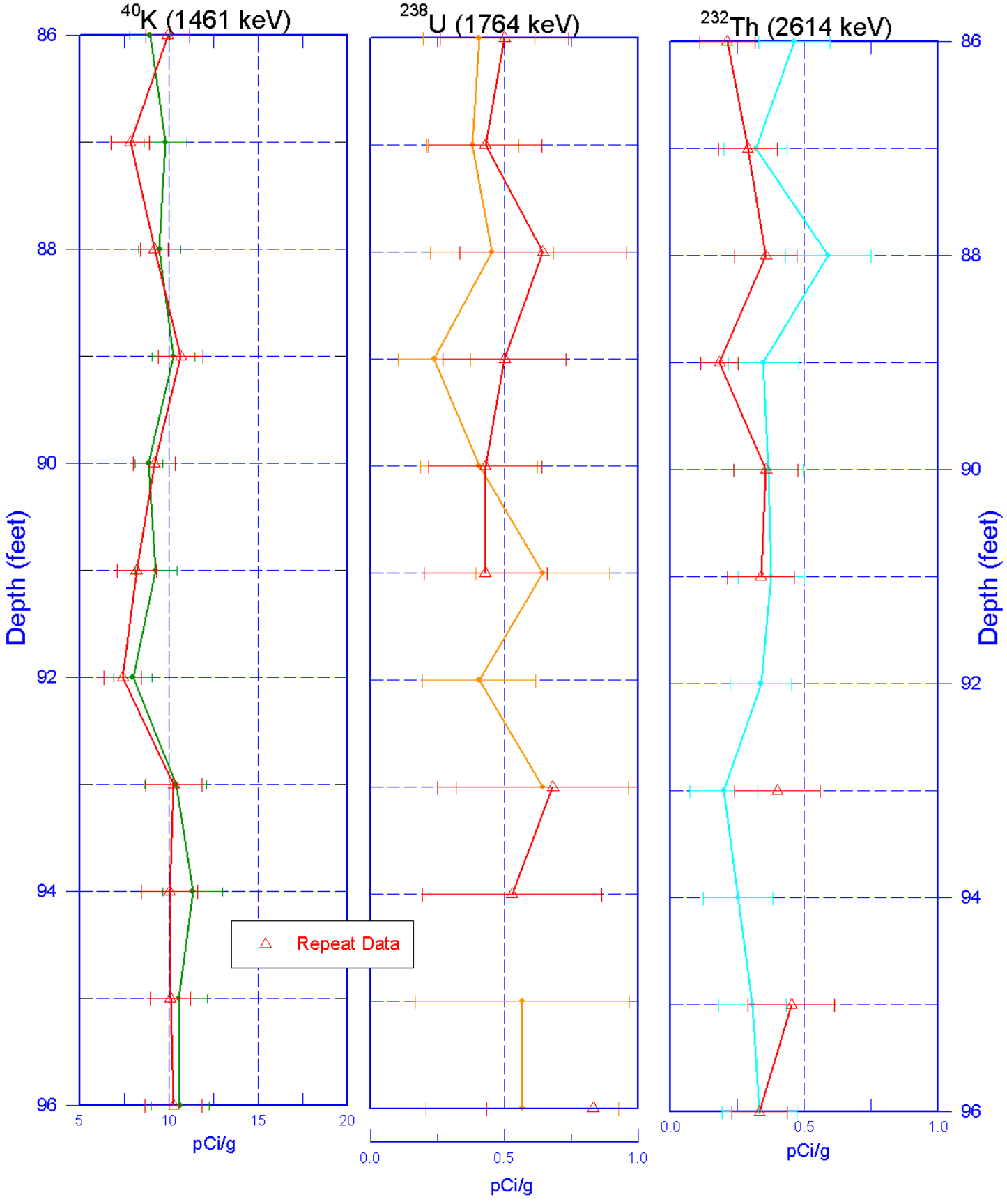
Repeat Section of Natural Gamma Logs



Zero Reference - ground surface

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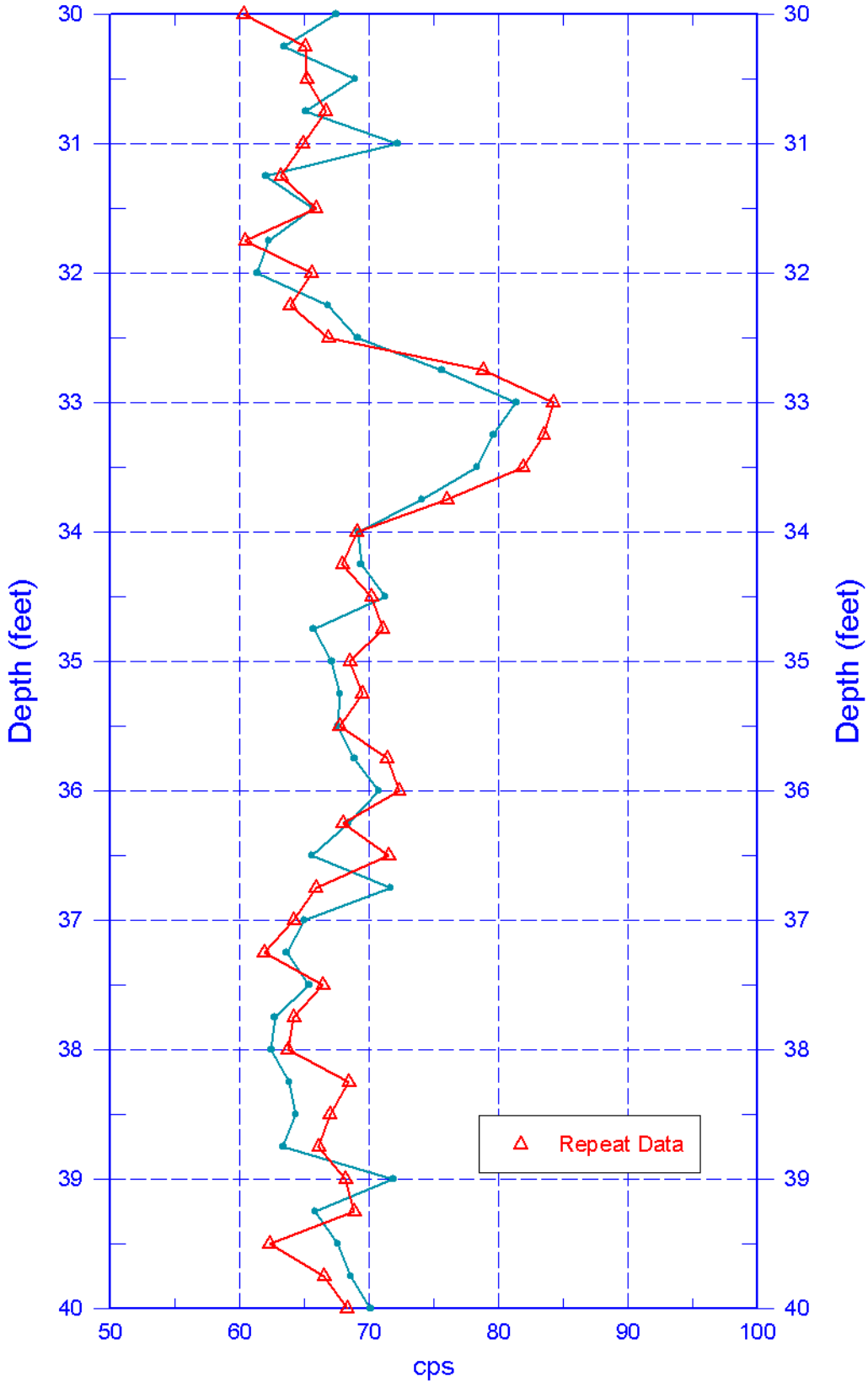
Moisture Repeat Section



Zero Reference - ground surface